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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/501,925 | 07/28/2004 | Jann Schmidt | 255898US0PCT | 2156 |
| 22850 | 7590 | 07/28/2006 | EXAMINER | |
| C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | AHMAD, NASSER | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1772 | |

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/501,925

Applicant(s)

SCHMIDT ET AL.

Examiner

Nasser Ahmad

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/28/04, 3/29/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6-18 are rejected under 35 U.S.C. 103(a) as being obvious over Schmidt (7046903).

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Art Unit: 1772

Schmidt relates to a light-guide body which has at least one light-entry surface and at least one light-exit surface, the ratio of the light-exit surface area to the light-entry surface area being at least 4, comprising at least one light-guiding layer, wherein the light-guiding layer comprises at least 60% by weight, expressed in terms of the weight of the light-guiding layer, of polymethyl methacrylate and from 0.001 to 0.08% by weight, expressed in terms of the weight of the light-guiding layer, of spherical particles with an average diameter in the range of from 0.3 to 40 microns, and the light-exit surface of the light-guiding layer is provided with structurings. However, Schmidt fails to teach that the particles present in an amount of .0001 to 0.2%. It would have been obvious to one having ordinary skill in the art to modify Schmidt by providing the amount of spherical particles of 0.00001 to 2% (as claimed), based on optimization through routine experimentation, for optimum light scattering properties.

For claim 2, the ratio of at least 20, see col. 9, lines 26-28.

For claim 3, the thickness of the light guiding layer of 2-100 mm, see col. 9, lines 29-31.

The particles of claim 4 can be of barium sulphate (col. 3, lines 36-38).

Figures 1-4 shows the light-exit surface to have uniform structurings or non-uniform structurings (col. 10-14) or the surface is in a line form for claims 6-8.

For claim 9, the methyl methacrylate is at least 90% of the light-guide body (col. 3, lines 32-35).

Regarding claims 12-18, see Schmidt col. 4, claims 7-13.

Art Unit: 1772

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being obvious over Schmidt in view of Khanarian (5881201).

Schmidt, as discussed above, fails to teach that the plastic particle is polystyrene.

Khanarian discloses a light guide containing particles such as inorganic or organic particles, including polystyrene (col. 4, lines 14-15 and 35-40). Khanarian shows that polystyrene particle is an equivalent structure known in the art. Therefore, because these two particle structure were art-recognized at the time the invention was made, one having ordinary skill in the art would have found it obvious to substitute organic (polystyrene) particles for the inorganic (barium sulphate) particle.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-4 and 6-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 7046903. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant application and the Patent'903 are directed to the same light-guide structure, except for the particles being present in an amount of .0001 to 0.2%. It would have been obvious to one having ordinary skill in the art to modify Patent'903 by providing the amount of spherical particles of 0.00001 to 2% (as claimed), based on optimization through routine experimentation, for optimum light scattering properties.

For claim 2, the ratio of at least 20, see col. 9, lines 26-28.

For claim 3, the thickness of the light guiding layer of 2-100 mm, see col. 9, lines 29-31.

The particles of claim 4 can be of barium sulphate (col. 3, lines 36-38).

Figures 1-4 shows the light-exit surface to have uniform structurings or non-uniform structurings (col. 10-14) or the surface is in a line form for claims 6-8.

For claim 9, the methyl methacrylate is at least 90% of the light-guide body (col. 3, lines 32-35).

Regarding claims 12-18, see Schmidt col. 4, claims 7-13.

6. Claim 6 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 7046903 in view of Khananrian. Patent'903, as discussed above, fails to teach the plastic particle is polystyrene. Khanarian discloses a light guide containing particles such as inorganic or

Art Unit: 1772

organic particles, including polystyrene (col. 4, lines 14-15 and 35-40). Khanarian shows that polystyrene particle is an equivalent structure known in the art. Therefore, because these two particle structure were art-recognized at the time the invention was made, one having ordinary skill in the art would have found it obvious to substitute organic (polystyrene) particles for the inorganic (barium sulphate) particle.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser Ahmad whose telephone number is 571-272-1487. The examiner can normally be reached on 7:30 AM to 5:00 PM, and on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Nasser Ahmad 7/24/06
Primary Examiner
Art Unit 1772

N. Ahmad.
July 24, 2006.